

REMARKS

Claims 1-4, 6-13 and 15-20 are pending in the application. Claims 1, 2, 4, 6, 9-11 and 17-20 stand rejected. Claims 3, 7, 12, 13, 15 and 16 are objected to.

Allowable Subject Matter

The Examiner has indicated that claims 3, 7, 12, 13, 15 and 16 contain allowable subject matter. The Examiner has objected to claims 3, 7, 12, 13, 15 and 16 as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claim. Claims 7, 12 and 15 have been rewritten in independent form. Claims 3 and 13 have been canceled but their limitations have been included into claims 1 and 11, respectively. Therefore, claims 1 and 11 are now allowable

35 USC §112 Rejections

Claims 1 and 11 are rejected under 35 USC §112, second paragraph, for failing to provide proper antecedent basis for the phrase “said nitride portion”. Claims 1 and 11 have been amended to delete the phrase “said nitride portion” and insert therefor “said ridge portion”. Therefore, withdrawal of the rejection of Claims 1 and 11 under 35 USC §112, second paragraph, is respectfully requested.

Claim Rejections under 35 USC §102

Claims 1, 2, 4 and 9 are rejected under 35 USC §102(e) as being anticipated by Bour et al. (US 2003/0053504).

The present invention provides for an AlGaN cladding layer (7), a first GaN layer (8), covered by a current blocking layer (9). An opening (W_1) is provided in the current blocking layer (9) which is significantly smaller than the width (W_2) of the first GaN layer (8). As shown in Figure 2 and discussed on page 21, lines 5-16 of the specification the ratio of W_2/W_1 is between 0.1 and 0.95 and preferably between 0.1 and 0.8. Further, a second GaN layer (10) is provided on top of the current blocking layer (9).

Bour et al. describes a laser diode having a growth substrate (110) on which is placed a layer (115) made of AlGaN:Si to reduce optical leakage. In contact with layer (115) is a n-electrode (195). A n-type cladding layer (121) is placed on layer (115). In this embodiment photoresist is applied to layer (185) to define the top of ridge structure (111). A burying layer (155) is positioned over layer (185) with windows through burying layer (155) to allow p-electrode (190) to contact layer (185) and n-electrode (195) to contact layer (115).

Claim 1 has been amended to include all the limitations of allowable claim 3. Since the Examiner has indicated that claim 3 contains allowable subject matter claim 1 is now in condition for allowance. Further, claim 11 has been amended to include all the limitations of allowable claim 13. Since the Examiner has indicated that claim 13 contains allowable subject matter claim 11 is now in condition for allowance. Therefore, withdrawal of the rejection of claims 1, 2, 4 and 9 under

35 USC §102(e) as being anticipated by Bour et al. (US 2003/0053504) is respectfully requested.

Claim Rejections under 35 USC §103

Claim 6 is rejected under 35 USC §103(a) as being unpatentable over Bour et al. (US 2003/0053504) and further in view of Sugiura et al. (U.S. Patent No. 5,932,896).

Sugiura et al. describes a semiconductor device in which the current blocking layer is composed of indium and gallium.

Claim 6 is allowable by virtue of its dependence from an allowable independent claim. Therefore, withdrawal of the rejection of claim 6 under 35 USC §103(a) as being unpatentable over Bour et al. (US 2003/0053504) and further in view of Sugiura et al. (U.S. Patent No. 5,932,896) is respectfully requested.

Claims 10 and 18 are rejected under 35 USC §103(a) as being unpatentable over Bour et al. (US 2003/0053504).

Claim 10 abd 18 are allowable by virtue of its dependence from allowable independent claims. Therefore, withdrawal of the rejection of claims 10 and 18 under 35 USC §103(a) as being unpatentable over Bour et al. (US 2003/0053504) is respectfully requested.

Conclusion

In view of the aforementioned amendments and accompanying remarks, the claims, as amended, are believed to be patentable and in condition for allowance, which action, at an early date, is requested.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact the applicants' undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, the applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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